

Name low-performing Block _____ Date _____

Earth Science Web quest

Directions: Answer each of the following questions on a separate sheet. Make sure to skip lines as you write down the answers and that the answers are in complete sentences

Part 1 → Click on **Plate Movement/ earthquake and volcanoes** ON **Mrs. McNamara's page website**

1. Click on "Maps." Check the boxes for boundaries, volcanoes, earthquakes, hotspots and velocities. What correlations do you see? What seems to have no relationship?
2. Click on "Motion." Move the plates to see how they have changed over time. What do the black lines represent? How about the green areas
3. Click on "Details."
 - a. What is oceanic-continent subduction? What is a continental volcanic arc and what are some examples?
 - b. What is a continent-continent collision? What are some examples?
 - c. What is ocean-ocean subduction? What are some examples?
 - d. What is a continental rift? What are some examples?
 - e. What is a midocean ridge? How is it like a conveyor belt?
 - f. What is a continental transform? What is an example?
 - g. What is an oceanic transform?
 - h. What are oceanic hot spots? What are some examples?
 - i. What are continental hot spots? What are some examples?

Part 2 → Click on "Interactive Volcano" on **Mrs. McNamara's website**

1. Click on Global Perspective. What are tectonic plates?
2. Click on "Ring of Fire" (bottom right corner). What is the "Ring of Fire"?
3. Click on "Layers Within." What are they?
4. Click on "Volcano Types." What are the 3 types of volcanoes? Describe each type.
5. Click on "Inside a volcano." Draw a picture of the inside of a volcano and label the different parts.
6. Click on "Build your own volcano and watch it erupt." How do viscosity and gas factor in volcanoes?
7. Click on "viscosity info". What is it?
8. Click on "gas info." What is it?
9. Now try your hand at varying the conditions of the volcano and starting the eruption. Fill in the chart below.

Settings	Type of volcano	Type of eruption
low viscosity and low gas setting	Shield volcano	Effusive eruptions lava flows
high viscosity and low gas setting	Dome	Dome - slow eruption
Low viscosity and high gas setting	Shield Hotspot fire mountain	low flows Effusive
high viscosity and high gas setting	Strato volcano	explosive explosive

The boundaries are correlating with

1. The correlations are, continents, diamonds, transforming what?
 2. The hot spots have no relations
 3. The block ones show the current shoring
 of all the present day land masses, including their underwater protations.

3. Oceanic - Continent Subduction is when a deep sea trench forms next to the ~~fracture~~ the leading edge examples?

3. Continent - Continent collision is when two continental plates collide with each other, examples?
 3. Ocean - Ocean Subduction is when the ocean another oceanic plate examples? is subducting under the surface

3. Continental drift is when a continent How does it fit? drifts underneath the surface

3. Oceanic edge is where new ~~oceanic~~ magma or oceanic crust is being pushed up. It is like a convex belt because it keeps pushing new land up and?

3. A continental transform is when a continent is transformed into a new shape. It is a boundary.

3. Oceanic transform is when the surface where plates slide past each other under the water is transformed or changed.

3. Oceanic hot spots is when there is potential for there to be a ocean transform

3. Continental hot spots is when there is potential for there to be continental transform

What is a transform?
 what is a transform?

Part 2

1. Tectonic plates are large sections of the earth that fit together like a puzzle.
2. The ring of fire is the world's most active volcanic zone.
3. The layers within the earth are the lower mantle, outer core, and **crust**?
4. The three types of volcanoes are stratovolcano, under core, and shield.

*you needed
to describe
hot list.*

- ~~5. The~~
5. Viscosity and gas factor in volcano because they help the explosiveness **and shape** of the volcano.
 6. Viscosity info shows how much viscosity is inside the volcano. It measures the amount of sulfur.
 7. Gas is the amount of water and **CO2** within the volcano.